REMARKS

The Examiner is thanked for the clarity and conciseness of the previous Office Action, and for the citation of references, which have been studied with interest and care.

This Amendment is in response to the Office Action mailed July 16, 2002. In the Office Action, claims 1, 4, 5, and 7-16 stand rejected under 35 U.S.C. §103.

Reconsideration of the objections and rejections set forth in the previous Office Action in view of the amendments and remarks is respectfully requested.

I. CLAIM OBJECTIONS

Applicant has amended claim 4, as suggested by the Examiner, to overcome the Examiner's objections.

II. REJECTION UNDER 35 U.S.C. § 103

Claims 1, 4, 5, and 7-16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,262,995 issued to Kwak in view of U.S. Patent No. 5,771,009 issued to Nakaya.

Applicant respectfully submits that independent claims 1, 5, 9, and 14 are not rendered obvious by Kwak in view Nakaya, because there is no motivation to combine Kwak in view of Nakaya, and even if there were, the combination would still not teach or suggest independent claims 1, 5, 9, and 14.

Applicant's independent claim 1 discloses a method comprising performing ATM segmentation functions with a segmentation and reassembly (SAR) *software module implemented in a CPU of a personal computer*, along with other elements. Similarly, Applicant's

amended independent claim 9 discloses a method comprising performing ATM reassembly functions with a segmentation and reassembly (SAR) *software module implemented in a CPU of a personal computer*, along with other elements. In a similar vein, independent claim 5 discloses a code section including *segmentation instructions* implemented in the *CPU of a personal computer* to perform the operation of segmenting data and claim 14 includes *reassembly instructions* implemented in the *CPU of a personal computer* to perform the operation of the reassembly of data.

As the Office Action states, "Kwak does not explicitly teach a software module implemented in the CPU." (Office Action, page 3). However, the Office Action states that "[t]hose of skill in the art would have been motivated by Nakaya to incorporate a software module for SAR into Kwak to flexibly cope with changes in SAR functions of ATM... Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a SAR software module implemented in the CPU into Kwak." (Office Action, page 4)

Further, the Office Action states that "Kwak does not explicitly teach that the ATM terminal is a personal computer"; but that it is well known in the art that a personal computer performs a multimedia communication including voice communications. (Office Action, page 4). Moreover, the Office Action states that: "Those of skill in the art would have been motivated to use a personal computer as the ATM terminal for multimedia communications... Therefore, it would have been obvious to one having ordinary skill in the art use a personal computer as the ATM terminal Kwak." (Office Action, page 4).

As stated in the patent application, Applicant's invention uses "software implemented in a multipurpose central processing unit to form the segmentation and reassembly functions in a personal computer...The use of software to perform the segmentation and reassembly reduces the cost of building a personal computer." (Application, page 6). Moreover, as the Applicant points out in the application, by utilizing a software module implemented in a CPU to perform these

functions, "significant hardware savings may be had *over hardware implementations of any SAR chip.*" (Emphasis added) (Application, page 8). Thus, the invention of using a software module to perform these functions, implemented in a CPU of a personal computer, provides significant advantages over the prior art.

Applicant respectfully submits that the Office Action's proposed combination of Kwak with Nakaya is insufficient to render obvious Applicant's independent claims. To begin with, Nakaya has nothing to do with ATM processing. In order to allegedly render obvious Applicant's claims, the Office Action cites col. 1, lines 30-42 of the Background Section of the Nakaya patent which states:

> In recent years, however, a coding/decoding technique (software codec) based upon software using a general purpose CPU has been proposed as a new implementation to substitute for the *conventional image coding/decoding technique* using a dedicated chip. The software codec requires a reduced amount of labor relative to the dedicated coding/decoding chip for developing devices. Further, the software code makes it possible to flexibly cope with changes in the functions and performance of the coding technique. Though a high-speed general purpose CPU is required to be used, the use of software codecs is expected to increase with an increase in the operation speed of general purpose CPUs. (emphasis added).

Moreover, Nakaya states that the object of the invention is to "provide a method and apparatus for transmitting or receiving data in such a manner to make it possible to *reproduce an image* even when the data is to be reproduced by a coding/decoding system that is not provided on the reproducing side. (col. 2, lines 41-44, emphasis added). Thus, Nakaya appears be directed to *image coding/decoding* and has nothing to do with ATM processing, and in combination with Kwak certainly does not teach or suggest performing ATM segmentation and/or reassembly functions *in a CPU of a personal computer* (e.g. with a segmentation and reassembly *(SAR) software module*).

In fact, Nakaya is non-analogous art. See MPEP § 2141.01(a), which cites a pertinent case...*Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir.

1993) (Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use *in personal computers*. Reference to *a SIMM for an industrial controller* was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were *intended for personal computers* and used dynamic random-access-memories, whereas reference SIMM was developed for use in large *industrial machine controllers* and only taught the use of static random- access-memories or read-only-memories, the finding that the reference was no analogous was supported by substantial evidence.) (emphasis added).

As recently stated by the Federal Circuit in *In re Kotzab*, 55 USPQ 2d (BNA) 1313, 1316 (Fed. Cir. 2000):

> Most if not all inventions arise from a combination of old elements. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.

Further, the Federal Circuit has stated: "Rarely, however, will the skill in the art component operate to supply missing knowledge or prior art to reach an obviousness judgment." Al-Site Corp. v. VSI Int'l, Inc., 50 USPQ2d 1161, 1171 (Fed. Cir. 1999). (Emphasis added).

Thus, Applicant respectfully submits the Kwak, either alone or in combination with Nakaya, would not render obvious Applicant's independent claims directed to performing ATM segmentation and/or reassembly functions *in a CPU of a personal computer* (e.g. with a segmentation and reassembly *(SAR) software module*). Further, Applicant respectfully submits that Applicant's independent claims 1, 5, 9, and 14 are not rendered obvious by Kwak in view of

Nakaya, because Nakaya is non-analogous art, there is no motivation to combine Kwak with Nakaya, and even if there were, the combination would not teach or suggest Applicant's independent claims 1, 5, 9, and 14, and that *the skill in the art component*, by itself, is not sufficient in combination with Kwak to render obvious Applicant's independent claims 1, 5, 9, and 14.

Based on the above, Applicant respectfully submits that the Office Action's contention that, although Kwak does not explicitly teach a software module implemented in a CPU to perform SAR functions that *those of skill in the art would have been motivated by Nakaya* to incorporate a software module for SAR into Kwak to flexibly cope with changes in SAR functions of ATM and that therefore, *it would have been obvious to one having ordinary skill in the art* to incorporate a SAR software module implemented in the CPU into Kwak, is in error. Further, the Office Action's argument that although Kwak does not explicitly teach that the ATM terminal is a personal computer; but that *it is well known in the art* that a personal computer performs a multimedia communication including voice communications and that *those of skill in the art would been motivated* to use a personal computer as the ATM terminal for multimedia communications such that it *would have been obvious to one having ordinary skill in the art to use a personal computer as the ATM terminal* of Kwak is likewise in error, and incongruous with current case law regarding obviousness.

Accordingly, Applicant respectfully submits that Applicant's independent claims 1, 5, 9 and 14 are non-obvious. Therefore, withdrawal of this ground for rejection is respectfully submitted. Furthermore, the dependent claims are patentable for being dependent from allowable base claims. The Examiner is invited to call Applicant's attorney if it is believed that such contact would further examination of the present application.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

4. (Amended) The method of claim 1 wherein the traffic shaping of data is performed by [a] the central processing unit (CPU) of a computer.

CONCLUSION

In view of the remarks made above, it is respectfully submitted that pending claims 1, 4, 5, and 7-16 define the subject invention over the prior art of record. Thus, Applicant respectfully submits that all the pending claims are in condition for allowance, and such action is earnestly solicited at the earliest possible date. The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application. To the extent necessary, a petition for an extension of time under 37 C.F.R. is hereby made. Please charge any shortage in fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such account.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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ERIC T. KING
Reg. No. 44,188

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025
(714) 557-3800

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: October 1, 2002.

Susan McFarlane 10/1/02
Susan McFarlane *Date*